AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Currently Amended): A polymer electrolyte comprising:

a modified chlorine containing polymer having an enhanced chlorine level relative to a chlorine content of an unmodified chlorine containing polymer formed from polymerization of its monomer;

a salt of an alkali metal; and

an aprotic solvent;

wherein said polymer electrolyte is a solid polymer electrolyte comprising said salt and said aprotic solvent integrated with said modified chlorine containing polymer;

wherein said modified chlorine containing polymer comprises unblended C-PVC, said C-PVC having 60-[[72]]75 wt % chlorine;

wherein said polymer electrolyte comprises 10-40 wt % of said C-PVC.

2-7. (Canceled)

8. (Previously Presented): The polymer electrolyte of claim 1, wherein said alkali metal salt is selected from the group consisting of $LiClO_4$, $LiBF_4$, $LiAsF_6$, $LiPF_6$, $LiCF_3SO_3$, $LiN(CF_3SO_2)_2$, and combinations thereof.

9. (Previously Presented): The polymer electrolyte of claim 1, wherein said electrolyte

comprises from 3-20 wt % of said salt of an alkali metal.

10. (Previously Presented): The polymer electrolyte of claim 1, wherein as said aprotic solvent is selected from the group consisting of propylene carbonate, ethylene carbonate, dimethyl carbonate, gamma-butyrolactone, 1,3-dioxolane, dimethoxyethane, and combinations thereof.

11. (Previously Presented): The polymer electrolyte of claim 1, wherein said electrolyte comprises 40-82 wt % of said aprotic solvent.

12. (Currently Amended): A rechargeable battery, comprising:

an anode containing an alkali metal;

a cathode; and

a polymer electrolyte formed from a modified chlorine containing polymer having an enhanced chlorine level relative to a chlorine content of an unmodified chlorine containing polymer formed from polymerization of its monomer, a salt of an alkali metal, and an aprotic solvent;

wherein said polymer electrolyte is a solid polymer electrolyte comprising said salt and said aprotic solvent integrated with said modified chlorine containing polymer;

wherein said modified chlorine containing polymer comprises unblended C-PVC, said C-PVC having 60-[[72]]75 wt % chlorine;

wherein said polymer electrolyte comprises 10-40 wt % of said C-PVC.

13. (Canceled)

14. (Canceled)

15. (Previously Presented): The rechargeable battery of claim 12, wherein said anode comprises lithium.

16. (Canceled)

17. (Canceled)

18. (Previously Presented): The rechargeable battery of claim 12, wherein said anode comprises a lithium-ion intercalation material.

19. (Original): The rechargeable battery of claim 12, wherein said cathode comprises a metal oxide.

20. (Original): The rechargeable battery of claim 12, wherein said cathode comprises a lithium-transition metal oxide.

21. (Previously Presented): The rechargeable cell of claim 12, wherein said cathode is selected from the group consisting of MnO_2, $LiMn_2O_4$, vanadium oxides (V_xO_y), and combinations thereof.

22. (Original): The rechargeable cell of claim 12, wherein said cathode comprises a organic polymer.

23. (Previously Presented): The rechargeable cell of claim 12, wherein said cathode is selected from the group consisting of polyviologen, polyacetylene, polypyrrole, and combinations thereof.

24. (Original): The rechargeable cell of claim 12, wherein said cathode comprises a sulfur containing material.

25. (Original): The rechargeable cell of claim 12, wherein said cathode is at least one selected from the group consisting of TiS_2, S, polysulphide and polythiophene.

26-36. (Canceled)